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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/530,085	08/14/2000	STEPHEN JACOBS	A31222-PCTUSA	3842
21003	7590	07/09/2004	EXAMINER	
BAKER & BOTTS 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			MEHRA, INDER P	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 07/09/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/530,085

Applicant(s)

JACOBS ET AL.

Examiner

Inder P Mehra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2000 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This is in response to both amendment B dated 3/22/04 and amendment C dated: 5/24/04 which has been fully considered and made of record. Based on this amendment, claims 1, 13 and 25 (amended twice –once in amendment A and second in amendments B/C), and claims 2, 14 and 26 have been amended in amendment A. Claims 1-36 are now pending.

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on 3/22/04 and 5/24/04 has been entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-36 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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a. Claims 1, 13 and 25 have been amended to recite, “a proper time sequence received by the receiver” in line 6, which is not supported by specification, refer to specification pages 2 lines 1-3 4 lines 22-24, in which “sequence number is disclosed as sequence number for packet ordering, as opposed to proper time sequence, as claimed”. Time sequence is chronological order and not sequential number in order of succession. This is a new matter issue.

Appropriate correction/clarification is required.

b. Claims 1, 13 and 25 have been amended to recite, “adjusting *the data --- in order to maintain a proper time sequence of data received by the receiver*”, in lines 5-6, which is not supported by specifications, refer to page 1 lines 29-31, (as argued by applicant in “remarks”, page 7 of amendment C dated 5/24/04), page 2 lines 1-7, page 3 line 22 through page 7 line 8. Page 9 lines 1-12, (as referred to by applicant in amendment C at page 8) of specification do not support the amended limitation. Instead, specification discloses that “sending data only when $CWND > ACK$ ----the transmission rate be reduced in inverse relationship to the rate of buffer filling”.

Appropriate correction/clarification is required.

Specification

5. The amendments B dated 3/22/04 and C filed 5/24/04 are objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material

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which is not supported by the original disclosure is as follows: "a proper time sequence received by the receiver" in line 6". "Sequence number is disclosed as sequence number for packet ordering, as opposed to proper time sequence, as claimed". Time sequence is chronological order and not sequential number order of succession. This is a new matter issue.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-13, 15-25, and 27-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Keshav** (US Patent No. 5,627,970) in view of **Derby et al** (US Patent no. 5,359,593), hereinafter, **Derby**.

For claims 1, 11, 13, 23, 25, and 35, Keshav discloses a method and system for achieving and maintaining data transmission rates (bandwidth) including techniques for data transmission initialization between a source and a destination node in a digital data network, refer to abstract, col. 1 lines 5-11, comprising the steps of:

- means for maintaining an estimate of bandwidth available from source node from to the destination node, refer to abstract (***maintaining data transmission rates (B/W)***), col. 6 lines 9-15 (***maintaining nodal data transmission rates***

(B/W)), col. 7 lines 10-15 (*network can guarantee a nominal bandwidth --- estimate*); and

- means for adjusting the data for transmission in real time based on the estimate in order to maintain a proper time sequence of data received by the receiver, refer to “*adaptive transmission rates (B/W)*”, refer to abstract and step 502 in fig. 5, col. 1 lines 60-62 (*adjust data transmission rate*), col. 6 lines 15-19, col. 6 lines 27-30 (*transmission bandwidth (data rate) is -----adjusted*). “*dynamically adjusted*”, col. 6 lines 25-31, col. 7 lines 5-15.
- Further, Keshav discloses “*in proper sequence*”, refer to col. 8 lines 1-5 (*sequence number which represents each data packet’s position within a sequence of transmitted data packet,*), col. 8 lines 17-19 (*sequence number to each data packet is that of the last in-sequence data packet*).

Keshav does not disclose expressly, “real time”;

Derby discloses, “*real time data delivery*”, refer to col. 5 lines 50-55; also discloses, “*adjusting transmission based on the estimate in order to main real time transmission*”, refer to abstract, col. 1 lines 10, 18-25, and col. 2 lines 30-33. Derby also discloses in col. 16 lines 40-42 (*maximum rate at which data can be adjusted*).

It would have been obvious to a person of ordinary skill in the art at the time of invention to compress video data before transmission across the network. A person of ordinary skill in the art would have been motivated to employ Derby’s Dynamic bandwidth estimation and adaptation into Keshav’s system for a method and apparatus for achieving and maintaining optimum

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transmission rates in order to compress video data for transmission. The suggestion/motivation to do so would have been to optimize the use of bandwidth and storage space.

For claims 3, 15, and 27, the system of Keshav monitors packet loss based on acknowledgments from the destination node, refer to col. 7 line 60 through col. 8 line 5;

For claims 4, 7, 16, 19, 28 and 31, Keshav discloses maintenance of count of packet/bytes, refer to col. 7 lines 66, to col. 8 line 2;

For claims 5, 6, 8, 9, 17, 18, 20, 21, 29, 30, 32, and 33, Keshav discloses maintaining the data transmission rates of as to how many packets/bytes are allowed to be transmitted (upper bound) , refer to abstract, in accordance with TCP (IP) congestion window, refer to col. 2 line 31.

For claims 10, 12, 22, 24, 34, and 36, the system of Keshav also retransmits a packet which has been determined as a lost packet at the destination node, refer to col. 8 lines 32-35.

8. Claims 2, 14, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keshav as applied to claims 1, 13 and 26 above, and further in view of **Gittins et al** (US Patent no. 5,526,350), hereinafter, Gittins.

For claims 2, 14, and 26, Keshav discloses all the features of the subject matter, including the transmission of the system utilizing IP protocol which supports transmission in real time,

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refer to col. 5 lines 48-53, as explained in paragraph 3 above, with the exception of the following limitation of claims 2, 14 and 26:

- data comprises video data;

Gittins discloses data comprises compressed video data, refer to col. 7 line 21-23;

It would have been obvious to a person of ordinary skill in the art at the time of invention to compress video data before transmission across the network. A person of ordinary skill in the art would have been motivated to employ Gittins's communication network into Keshav's system for a method and apparatus for achieving and maintaining optimum transmission rates. in order to compress video data for transmission. The suggestion/motivation to do so would have been to optimize the use of bandwidth and storage space.

Response to Arguments

9. Applicant's arguments filed 5/24/04 have been fully considered but they are not persuasive.

In response to applicant's argument that Keshav does not disclose "real time data", Derby, refer to office action above, discloses real time data, refer to col. 5 lines 50-55.

In response to applicant's argument that "maintain an estimate of bandwidth available" is not disclosed by Keshav, and Gittens, examiner states that, please, refer to Keshav abstract (maintaining data transmission rates (B/W), col. 6 lines 9-15 (maintaining nodal data transmission rates (B/W)), col. 7 lines 10-15 (network can guarantee a nominal bandwidth ---- estimate), Gittens col. 1 lines 50-52 (predetermined (estimated) amount of B/w), lines 55-57 (guarantee minimum level of B/W), col. 7 lines 20-25.

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In response to applicant's argument, "neither Keshav and Derby, whether taken individually or in combination, teach, suggest or show, **adjusting or processing the data for transmission according to the available bandwidth, so that the receiver receives the transmitted data in a timely manner, in a proper sequence**", examiner states that Keshav discloses "adaptive transmission rates (B/W), refer to abstract and step 502 in fig. 5, col. 1 lines 60-62 (**adjust data transmission rate**), col. 6 lines 15-19, col. 6 lines 27-30 (**transmission bandwidth (data rate) is -----adjusted**). Derby also discloses in col. 16 lines 40-42 (*maximum rate at which data can be adjusted*). Further, Keshav discloses "in proper sequence", refer to col. 8 lines 1-5 (sequence number which represents each data packet's position within a sequence of transmitted data packet,), col. 8 lines 17-19 (sequence number to each data packet is that of the last in-sequence data packet).

In the light of above explanation, arguments by applicant are not persuasive.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P Mehra whose telephone number is 703-305-1985. The examiner can normally be reached on 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 703-308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder Mehra

Inder P Mehra

Examiner

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DANTON
PRIMARY EXAMINER